



I hereby certify that this correspondence is being deposited with the United States Postal Service, with sufficient postage, as first class mail in an envelope addressed to:

Assistant Commissioner for Patents  
Washington, D.C. 20231  
on February 18, 2002

Date of Deposit

Jonathan M. Blanchard, Ph.D.

Name of applicant, assignee or  
Registered Representative

Signature

2/18/02

Date of Signature

Our Case No.: 10907-4

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Charles Kimball Brush et al.

Serial No.: 10/022,014

Filing Date: December 14, 2001

For: POST-SYNTHESIS LABELING OF NUCLEIC  
ACIDS, ASSAYS USING NUCLEIC ACIDS  
THAT ARE LABELED POST-SYNTHETICALLY,  
SINGLE NUCLEOTIDE DETECTION, AND  
ASSOCIATED COMPOUNDS AND  
MICROARRAYS

Examiner: To be assigned

Group Art Unit No.: 1645

### INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed below and on the attached Form PTO-1449 be considered by the Examiner and

made of record. Copies of each reference are enclosed for the convenience of the examiner.

The references now cited are the following:

#### U.S. PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	NAME
4,908,307	3/13/1990	Rodland et al.
5,545,531	8/13/1996	Rava et al.
5,702,925	12/30/1997	Smith et al.
5,741,644	4/21/1998	Kambara et al.
5,804,375	9/08/1998	Gelfand et al.
5,857,659	1/12/1999	Sapolsky et al.
6,087,095	7/11/2000	Rosenthal et al.
6,183,970 B1	2/06/2001	Okano et al.

#### FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY
WO 98/56954	12/17/1998	PCT
WO 00/39345	7/06/2000	PCT
WO 00/79006 A1	12/28/2000	PCT

#### OTHER ART (including Author, Title, Date, Pertinent Pages, etc.)

Conway, Nancy E. et al., "The Covalent Attachment of Multiple Fluorophores to DNA Containing Phosphorothioate Diesters Results in Highly Sensitive Detection of Single-Stranded DNA", Bioconjugate Chem., Vol. 2, No. 6, 1991, pp. 452-457.
Eckstein, F., "Nucleoside Phosphorothiates", Ann Rev. Biochemistry, Vol. 54, 1985, pp 367-402.
Fidanza, Jacqueline A. et al., "Introduction of Reporter Groups at Specific Sites in DNA Containing Phosphorothioate Diesters", Am. Chem. Soc., Vol. 111, 1989, pp. 9117-9119.
Fidanza, Jacqueline A. et al., "Functionalization of Oligonucleotides by the Incorporation of Thio-Specific Reporter Groups", Methods in Molecular Biology, Vol. 26, 1994, pp. 121-143.
Gupta, Vineet, "Studies Aimed at Controlled Chemical Cleavage of DNA", Department of Chemistry - The College of Arts and sciences, University of Rochester, New York, 1997, 249 pages.
Hodges, Robin R. et al., "Post-Assay Covalent Labeling of Phosphorothioate-Containing Nucleic Acids with Multiple Fluorescent Markers", Biochemistry, Vol. 28, 1989, pp. 261-267.

RECEIVED

MAR 05 2002  
TECH CENTER 1600-2900

Qin, Peter Zhifeng et al., "Site-Specific Labeling of RNA with Fluorophores and Other Structural Probes", A Companion to Methods in Enzymology, No. 18, 1999, pp. 60-70.
Scheit, Karl Heinz, Dr., "Nucleotide Analogs", Synthesis and Biological Function, 1980, pp. 101-113
Temsamani, Jamal et al., "Enzymatic Labeling of Nucleic Acids", Molecular Biology, Vol. 5, 1996, pp. 223-232.
Trevisiol, Emmanuelle, et al., "Synthesis of Nucleoside Triphosphates that Contain an Aminooxy Function for Post-Amplification Labelling", Eur. Journal of Organic Chemistry, 2000, pp. 211-217.
"3D-Link™ Protocol Information", retrieved from the Internet on 5/29/01, <a href="http://www.motorola.com/lifesciences/3dlprotocol.html">http://www.motorola.com/lifesciences/3dlprotocol.html</a> , pp 1-6.
"Alexa Fluor: Simply the Best and Brightest Fluorescent Conjugates," found on the internet at <a href="http://www.probes.com/media/publications/150.pdf">http://www.probes.com/media/publications/150.pdf</a>

In accordance with 37 C.F.R. § 1.97(g),(h), this Information Disclosure Statement is not to be construed as a representation that a search has been made and is not to be construed to be an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

This Information Disclosure Statement is filing filed concurrently with the patent application and no fees are believed to be due in connection with filing of this Information Disclosure Statement. However, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to this material, the Commissioner is hereby authorized to deduct said fees from Brinks Hofer Gilson & Lione Deposit Account No. 23-1925.

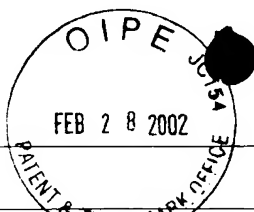
Applicants respectfully request that the listed documents be made of record in  
the present case.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Blanchard', written over a horizontal line.

Jonathan M. Blanchard, Ph.D.  
Registration No. 48,927  
Attorney for Applicants

BRINKS HOFER GILSON & LIONE  
P.O. Box 10395  
Chicago, IL 60610  
(312) 321-4200



FORM PTO-1449	SERIAL NO. 10/022,014	CASE NO. 10907/4
<b>LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT</b>	FILING DATE December 14, 2001	GROUP ART UNIT 1645
(use several sheets if necessary)	APPLICANT(S): Charles Kimball Brush et al.	

## REFERENCE DESIGNATION

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS/ SUBCLASS	FILING DATE
	A1	4,908,307	3/13/1990	Rodland et al.		
	A2	5,545,531	8/13/1996	Rava et al.		
	A3	5,702,925	12/30/1997	Smith et al.		
	A4	5,741,644	4/21/1998	Kambara et al.		
	A5	5,804,375	9/08/1998	Gelfand et al.		
	A6	5,857,659	1/12/1999	Sapolsky et al.		
	A7	6,087,095	7/11/2000	Rosenthal et al.		
	A8	6,183,970 B1	2/06/2001	Okano et al.		

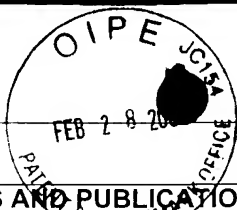
## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS/ SUBCLASS	TRANSLATION YES NO
	A9	WO 98/56954	12/17/1998	PCT		
	A10	WO 00/39345	7/06/2000	PCT		
	A11	WO 00/79006 A1	12/28/2000	PCT		

EXAMINER INITIAL	OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)	
	A12	Conway, Nancy E. et al., "The Covalent Attachment of Multiple Fluorophores to DNA Containing Phosphorothioate Diesters Results in Highly Sensitive Detection of Single-Stranded DNA", Bioconjugate Chem., Vol. 2, No. 6, 1991, pp. 452-457.
	A13	Eckstein, F., "Nucleoside Phosphorothiates", Ann Rev. Biochemistry, Vol. 54, 1985, pp 367-402.
	A14	Fidanza, Jacqueline A. et al., "Introduction of Reporter Groups at Specific Sites in DNA Containing Phosphorothioate Diesters", Am. Chem. Soc., Vol. 111, 1989, pp. 9117-9119.
	A15	Fidanza, Jacqueline A. et al., "Functionalization of Oligonucleotides by the Incorporation of Thio-Specific Reporter Groups", Methods in Molecular Biology, Vol. 26, 1994, pp. 121-143.
	A16	Gupta, Vineet, "Studies Aimed at Controlled Chemical Cleavage of DNA", Department of Chemistry - The College of Arts and sciences, University of Rochester, New York, 1997, 249 pages.
	A17	Hodges, Robin R. et al., "Post-Assay Covalent Labeling of Phosphorothiate-Containing Nucleic Acids with Multiple Fluorescent Makers", Biochemistry, Vol. 28, 1989, pp. 261-267.
	A18	Qin, Peter Zhifeng et al., "Site-Specific Labeling of RNA with Fluorophores and Other Structural Probes", A Companion to Methods in Enzymology, No. 18, 1999, pp. 60-70.
	A19	Scheit, Karl Heinz, Dr., "Nucleotide Analogs", Synthesis and Biological Function, 1980, pp. 101-113

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

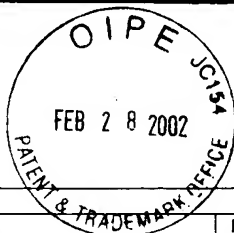


FORM PTO-1449	SERIAL NO. 10/022,014	CASE NO. 10907/4
<b>LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT</b>	FILING DATE December 14, 2001	GROUP ART UNIT 1645
(use several sheets if necessary)	APPLICANT(S): Charles Kimball Brush et al.	

EXAMINER INITIAL	OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)	
	A20	Temsamani, Jamal et al., "Enzymatic Labeling of Nucleic Acids", Molecular Biology, Vol. 5, 1996, pp. 223-232.
	A21	Trevisiol, Emmanuelle, et al., "Synthesis of Nucleoside Triphosphates that Contain an Aminooxy Function for Post-Amplification Labelling", Eur. Journal of Organic Chemistry, 2000, pp. 211-217.
	A22	"3D-Link™ Protocol Information", retrieved from the Internet on 5/29/01, <a href="http://www.motorola.com/lifesciences/3dlprotocol.html">http://www.motorola.com/lifesciences/3dlprotocol.html</a> , pp 1-6.
	A23	"Alexa Fluor: Simply the Best and Brightest Fluorescent Conjugates," found on the internet at <a href="http://www.probes.com/media/publications/150.pdf">http://www.probes.com/media/publications/150.pdf</a>

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



JE:15

TRANSMITTAL LETTER			Case No. 10907-4
Serial No. 10/022,014	Filing Date December 14, 2001	Examiner To be assigned	Group Art Unit 1645
Inventor(s) Charles Kimball Brush, et al.			
Title of Invention POST-SYNTHESIS LABELING OF NUCLEIC ACIDS, ASSAYS USING NUCLEIC ACIDS THAT ARE LABELED POST-SYNTHETICALLY, SINGLE NUCLEOTIDE POLYMORPHISM DETECTION, AND ASSOCIATED COMPOUNDS AND MICROARRAYS			

TO THE COMMISSIONER FOR PATENTS

Transmitted herewith is Transmittal Letter, Information Disclosure Statement, PTO Form 1449 and 23 associated references; and return receipt.

- ☐ Small entity status of this application under 37 CFR § 1.27 has been established by verified statement previously submitted.
- ☐ A verified statement to establish small entity status under 37 CFR §§ 1.9 and 1.27 is enclosed.
- ☐ Petition for a \_\_\_\_\_ month extension of time.
- ☐ No additional fee is required.
- ☐ The fee has been calculated as shown below:

RECEIVED  
MAR 05 2002  
TECH CENTER 1600/2900

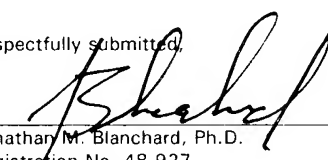
	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra
Total		Minus		
Indep.		Minus		
First Presentation of Multiple Dep. Claim				

Small Entity	
Rate	Add'l Fee
x \$9 =	
x 42 =	
+ \$140 =	
Total add'l fee	\$

Other Than Small Entity	
Rate	Add'l Fee
x \$18 =	
x \$84 =	
+ \$280 =	
Total add'l fee	\$

- ☐ Please charge Deposit Account No. 23-1925 (BRINKS HOFER GILSON & LIONE) in the amount of \$ \_\_\_\_\_. A duplicate copy of this sheet is enclosed.
- ☐ A check in the amount of \$ \_\_\_\_ to cover the filing fee is enclosed.
- ☒ The Commissioner is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this communication or credit any overpayment to Deposit Account No. 23-1925. A duplicate copy of this sheet is enclosed.
- ☒ I hereby petition under 37 CFR § 1.136(a) for any extension of time required to ensure that this paper is timely filed. Please charge any associated fees which have not otherwise been paid to Deposit Account No. 23-1925. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

  
Jonathan M. Blanchard, Ph.D.  
Registration No. 48,927  
Attorney for Applicant

BRINKS HOFER GILSON & LIONE  
P.O. BOX 10395  
CHICAGO, ILLINOIS 60610  
(312) 321-4200

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on February 18, 2002.

Date: 2/18/02 Signature: 

Form Dec-00

F:\COMMON\jmbb\Common Client-Matter Documents\Formal Papers by Case\10907 Motorola\10907-4 10907-4 TRANSMITTAL LETTER 2 18-2.doc